



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/553,527	10/17/2005	Helmut Burklin	PF030041	1569
24498 7590 10/27/2010 Robert D. Shedd, Patent Operations THOMSON Licensing LLC P.O. Box 5312 Princeton, NJ 08543-5312			EXAMINER RUTKOWSKI, JEFFREY M	
			ART UNIT 2473	PAPER NUMBER
			MAIL DATE 10/27/2010	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/553,527

Applicant(s)

BURKLIN ET AL.

Examiner

JEFFREY M. RUTKOWSKI

Art Unit

2473

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 September 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 3-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 4, 6 and 8-10 is/are rejected.
- 7) ☐ Claim(s) 3, 5 and 7 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 July 2009 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB08)
- 4) ☐ Interview Summary (PTO-413)
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____
- Paper No(s)/Mail Date _____

DETAILED ACTION

Claim 2 has been cancelled.

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 09/07/2010 has been entered.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

3. **Claims 1 and 8-10** are rejected under 35 U.S.C. 103(a) as being unpatentable over Straub et al. (WO 02/33902), hereinafter referred to as Straub, in view of Zou (US Pat 6,160,796) and Goodwin et al. (US Pat 7,505,455), hereinafter referred to as Goodwin.

4. For **claim 1**, Straub discloses *a network* (wireless network **3** in figure 1) *interconnecting bridge heads* (Wbox1 and Wbox2; see figure 1) *said network being referred to as a transparent bridge* (figure 1 shows the wireless network **3** interconnects Wbox1 and Wbox2), *to one or more other buses* (remote bus **8**; see figure 1), *connected to said first bus* (IEEE 1394 bus **2**; see figure

1. The IEEE 1394 includes an IEEE 1394 bus **2**; see page 2 lines 23-31 and figure 1) *by said transparent bridge* (figure 1 shows the wireless network **3** is used to interconnect the IEEE 1394 bus **2** and the remote bus **8** via Wbox1 and Wbox2), *said method being executed on a bridge head* (WBox1), *connected to said first bus* (1394 bus **2**) *and to said transparent bridge* (wireless network **3**; figure 1 shows the WBox 1 is connected to the 1394 bus **2** and the wireless network **3**).

5. Straub discloses *wherein, during a series of reset messages* (several reset messages received over a short interval; see page 5 lines 1-5) *said bridge head* (WBox1) *transmits to said one or more other buses* (remote bus **8**) *interconnected on said transparent bridge* (wireless network **3**; figure 1 shows the wireless network **3** interconnects the WBox1 and the remote bus **8**) *only a reset message* (last received reset message) *from said series of reset messages* (when the WBox1 cannot obtain a data slot grant when several reset messages are received over a short interval, only the last received reset message is transmitted; see page 5 lines 1-5). Straub discloses bus resets may occur on the 1394 bus **2** (see page 2 lines 23-31 and page 4 lines 30-36). Straub does not disclose what causes bus resets to occur. Zou discloses bus reset messages are

used in *signaling an alternation in the direction of change of the number of nodes on said first bus* (bus resets are sent when a device is inserted, which is an up direction, or when a device is removed, which is a down direction; see col. 2 lines 15-21 and col. 12 lines 1-17). It would have been obvious to a person of ordinary skill in the art to use Zou's arrangement in Straub's invention to conform to the IEEE 1394 standard (Zou, col. 2 lines 12-21).

6. Straub discloses the IEEE 1394 standard supports isochronous transmissions (see page 15 lines 5-10). Straub does not disclose transmitting upon (i.e. on the occasion of) the expiration of a timeout. Goodwin suggests *in addition to transmission, upon expiration of a time out (tolerable_latency), of a received reset message, said timeout (tolerable_latency) being started upon reception of said received reset message* (the tolerable_latency starts when a tunneling packet is received; see col. 30 lines 37-42. The tunneling packets include packets that encapsulate the entire bus reconfiguration process; see col. 28 lines 49-54. Goodwin suggests transmitting packets on the occasion of the expiration of the tolerable_latency interval because to wait any longer would violate network latency requirements by queuing the tunneled packets for too long; see col. 30 lines 37-45). It would have been obvious to a person of ordinary skill in the art at the time of the invention to use Goodwin's arrangement in Straub's invention to conserve network resources by reducing the number of transactions that occur on the network (Goodwin, col. 28 lines 40-55).

7. For **claims 8 and 10**, Straub discloses the use of IEEE 1394 buses [**figures 1 and 2**].

8. For **claim 9**, Straub discloses *a device (WBox1; see figure 1) comprising a network interface connected to a bus (1394 bus 2) and a network interface connected to another network (wireless network 3; figure 1 shows the WBox1 has an interface connected to the 1394 bus 2 and*

the wireless network 3), *equipped with selection means* (processor executing software) *for selective transmission of reset messages coming from the bus* (Straub suggests the use of a selection means because the WBox1 is programmed to select the last reset message from a series of reset messages that occur in a short interval for transmission; see page 5 lines 1-5).

9. Straub discloses bus resets may occur on the 1394 bus 2 (see page 2 lines 23-31 and page 4 lines 30-36). Straub does not disclose what causes bus resets to occur. Zou discloses bus reset messages are used in *signaling an alternation in the direction of change of the number of nodes on said first bus* (bus resets are sent when a device is inserted, which is an up direction, or when a device is removed, which is a down direction; see col. 2 lines 15-21 and col. 12 lines 1-17). It would have been obvious to a person of ordinary skill in the art to use Zou's arrangement in Straub's invention to conform to the IEEE 1394 standard (Zou, col. 2 lines 12-21).

10. The combination of Straub and Zou suggests *wherein said selection means* (processor executing software) *for selective transmission only transmits a reset* (last reset message) *message from a series of reset messages* (reset messages that occur in a short interval. Straub's WBox1 is programmed to select the last reset message from a series of reset messages that occur in a short interval for transmission; see page 5 lines 1-5) *that signal an alternation in the direction of change of the number of nodes on said bus* (Zou discloses reset messages are used to signal the addition or the removal of a device from a bus; see col. 2 lines 15-21 and col. 12 lines 1-17).

11. Straub discloses the IEEE 1394 standard supports isochronous transmissions (see page 15 lines 5-10). Straub does not disclose transmitting upon (i.e. on the occasion of) the expiration of a timeout. Goodwin suggests *in addition to transmission, upon expiration of a time out* (tolerable_latency), *of a received reset message, said timeout* (tolerable_latency) *being started*

upon reception of said received reset message (the tolerable_latency starts when a tunneling packet is received; see col. 30 lines 37-42. The tunneling packets include packets that encapsulate the entire bus reconfiguration process; see col. 28 lines 49-54. Goodwin suggests transmitting packets on the occasion of the expiration of the tolerable_latency interval because to wait any longer would violate network latency requirements by queuing the tunneled packets for too long; see col. 30 lines 37-45). It would have been obvious to a person of ordinary skill in the art at the time of the invention to use Goodwin's arrangement in Straub's invention to conserve network resources by reducing the number of transactions that occur on the network (Goodwin, col. 28 lines 40-55).

12. **Claims 4 and 6** rejected under 35 U.S.C. 103(a) as being unpatentable over Straub in view of Zou and Goodwin as applied to **claim 1** above, and further in view of Hattig (US Pat 6,466,549).

13. For **claim 4**, Straub discloses the use of bus resets in a network. However, Straub does not disclose the cause of a bus reset. Hattig discloses when devices are added and removed a bus automatically reconfigures itself (a given method for phase recognition) [**col. 1 lines 25-28**]. It would have been obvious to a person of ordinary skill in the art to automatically reconfigure a bus in Straub's invention to provide plug-and-play capabilities [**Hattig, col. 1 line 23**].

14. For **claim 6**, Straub does not disclose the simulating the disconnecting of an entire bus. Hattig discloses a solicit action, which is essentially the same as a reset message, may be invoked at the request of an application in need of new or refreshed discovery information [**col. 5 lines 7-21**]. Because the network devices are not actually disconnected when a new solicit action (bus reset) is performed Hattig suggests the simulating the disconnection of an entire bus. It would

have been obvious to a person of ordinary skill in the art at the time of the invention to use Hattig's solicit action mechanism in Straub's invention to make sure topology information in a network does not become stale.

Response to Arguments

15. The arguments with respect to Zou not disclosing selecting between a message to transmit and messages to not transmit because Zou transmits all reset messages that result in a topology change are not persuasive. The arguments are based on piecemeal analysis because Straub was cited as making a selection between messages to transmit and messages to not transmit (see page 5 lines 1-5 of Straub). The combination of Straub and Zou discloses that devices can be added or removed in a short interval, causing a series of reset messages to be transmitted (see page 5 lines 1-5 of Straub and col. 2 lines 15-21 of Zou). When this occurs, Straub's WBox1 will only transmit the last bus reset message that was received (see page 5 lines 1-5 of Straub).

Allowable Subject Matter

16. **Claims 3, 5, and 7** are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

17. The following is a statement of reasons for the indication of allowable subject matter:

18. For **claim 3**, Straub discloses the selective transmission of reset messages (see page 5 lines 1-5). Straub et al. (US Pg Pub 2004/0057411), hereinafter referred to as Straub '411, discloses the comparison of network topologies to determine the devices that were on the network before a reset occurred (see paragraph 0059). However, a combination of Straub, Zou,

Goodwin and Straub '411 still does not teach or suggest the selective transmission of reset messages based on a network trend, such as the number of network nodes increasing.

19. For **claim 5**, the reasons are essentially the same as in **claim 3** above. A combination of Straub, Zou, Goodwin and Straub '411 does not tie a result obtained from a network comparison to the transmission of bus reset messages.

20. For **claim 7**, the combination of Straub, Zou, Goodwin and Hattig teaches away from resetting a timeout each time a message is received. The combination suggests a separate timeout for each packet because the tolerable_latency is a timeout that is tied to each packet (see col. 30 lines 35-45 of Hattig).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JEFFREY M. RUTKOWSKI whose telephone number is (571)270-1215. The examiner can normally be reached on Monday - Friday 7:30-5:00 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kwang Yao can be reached on (571) 272-3182. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Jeffrey M Rutkowski/
Examiner, Art Unit 2473